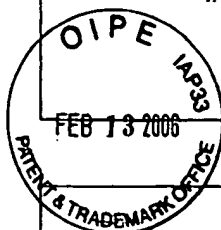


<b>FORM 1449*</b> <b>INFORMATION DISCLOSURE STATEMENT</b>  <b>IN AN APPLICATION</b> (Use several sheets if necessary)	Docket Number: I 1669.120USU1	Application Number: 10/764,428
	Applicant: SIMMONS	
	Filing Date: 01/23/04	Group Art Unit: 1651 1644



## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
Pnt ↓ ✓	5,225,539	07/06/1993	WINTER			
	5,693,761	12/02/1997	QUEEN ET AL.			
	5,821,337	10/13/1998	CARTER ET AL.			
	5,859,205	01/12/1999	ADAIR ET AL.			
	5,869,619	02/09/1999	STUDNICKA			
	6,800,738 B1	10/05/2004	CARTER ET AL.			
	6,479,284 B1	11/12/2002	MARASCO ET AL.			
	6,881,557 B2	04/19/2005	FOOTE			

## FOREIGN PATENT DOCUMENTS

	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

Pnt ↓ ✓		Carter et al., "High Level <i>Escherichia Coli</i> Expression and Production of a Bivalent Humanized Antibody Fragment", <u>Bio/Technology</u> , 10:163-167 (1992)
		Chomczynski et al., "Single-Step Method of RNA Isolation by Acid Guanidinium Thiocyanate-Phenol-Chloroform Extraction", <u>Anal. Biochem.</u> , 162:156-159 (1987)
		Chothia et al., "Structural Repertoire of the Human VH Segments", <u>J. Mol. Biol.</u> , 227:799-817 (1992)
		Foote et al., "Antibody Residues Affecting Conformation of the Hypervariable Loops", <u>J. Mol. Biol.</u> , 224:487-499 (1992)
		Hampe et al., "A novel monoclonal antibody specific for the N-terminal end of GAD65", <u>Journal of Neuroimmunology</u> , 113:63-71 (2001)
		Hansen et al., "Monoclonal Antibodies Identifying a Novel T Cell Antigen and Ia Antigens of Human Lymphocytes", <u>Immunogenetics</u> , 10:247-260 (1980)
		Henikoff et al., "Amino acid substitution matrices from protein blocks", <u>Proc. Natl. Acad. Sci. USA</u> , 89:10915-10919 (1992)
		Jin et al., "High Resolution Functional Analysis of Antibody-Antigen Interactions", <u>J. Mol. Biol.</u> , 226:851-865

EXAMINER <i>[Signature]</i>	DATE CONSIDERED 4/19/06
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.	

<b>FORM 1449*</b> <b>INFORMATION DISCLOSURE STATEMENT</b>  <b>IN AN APPLICATION</b>  (Use several sheets if necessary)	Docket Number: 11669.120USU1	Application Number: 10/764,428
	Applicant: SIMMONS	
	Filing Date: 01/23/04	Group Art Unit: <del>1651</del> 1644

		(1992)
Pnk		Jonsson et al., "Real-Time Biospecific Interaction Analysis Using Surface Plasmon Resonance and a Sensor Chip Technology", <u>BioTechniques</u> , 11:620-627 (1991)
		Licea et al., "FAB Fragments of the Monoclonal Antibody BCF2 are Capable of Neutralizing the Whole Soluble Venom from the Scorpion <i>Centruroides Noxius</i> Hoffmann", <u>Toxicon</u> , 34(8):843-847 (1996)
		MacCallum et al., "Antibody-antigen Interactions: Contact Analysis and Binding Site Topography", <u>J. Mol. Biol.</u> , 262:732-745 (1996)
		Martin et al., "Structural Families in Loops of Homologous Proteins: Automatic Classification, Modelling and Application to Antibodies", <u>J. Mol. Biol.</u> , 263:800-815 (263)
		Mhashilkar et al., "Inhibition of Human Immunodeficiency Virus Type I Replication <i>in Vitro</i> in Acutely and Persistently Infected Human CDR4 <sup>+</sup> Mononuclear Cells Expressing Murine and Humanized Anti-Human Immunodeficiency Virus Type I Tat Single-Chain Variable Fragment Intrabodies", <u>Human Gene Therapy</u> , 10:1453-1467 (1999)
		Morea et al., "Antibody Modeling: Implications for Engineering and Design", <u>Methods</u> , 20:267-279 (2000)
		Padlan, E.A., "A Possible Procedure for Reducing the Immunogenicity of Antibody Variable Domains while Preserving their Ligand-Binding Properties", <u>Mol. Immunol.</u> , 28(4):489-498 (1991)
		Padlan et al., "Identification of specificity-determining residues in antibodies", <u>FASEB J.</u> , 9:133-139 (1995)
		Rosok et al., "A Combinatorial Library Strategy for the Rapid Humanization of Anticarcinoma BR96 Fab", <u>The Journal of Biological Chemistry</u> , 271(37):22611-22618 (1996)
		Rudikoff et al., "Single amino acid substitution altering antigen-binding specificity", <u>Proc. Natl. Acad. Sci. USA</u> , 79:1979-1983 (1982)
		Rutgeerts et al., "Efficacy and Safety of Retreatment With Anti-Tumor Necrosis Factor Antibody (Infliximab) to Maintain Remission in Crohn's Disease", <u>Gastroenterology</u> , 117:761-769 (1999)
		Selisko et al., "Antibody BCF2 Against Scorpion Toxin Cn2 From <i>Centruroides noxius</i> Hoffmann: Primary Structure and Three-Dimensional Model as Free Fv Fragment and Complexed With Its Antigen", <u>PROTEINS: Structure, Function and Genetics</u> , 37:130-143 (1999)
		Tamara et al., "Structural Correlates of an Anticarcinoma Antibody: Identification of Specificity-Determining Residues (SDRs) and Development of a Minimally Immunogenic Antibody Variant by Retention of SDRs Only", <u>The Journal of Immunology</u> , 164:1432-1441 (2000)
		Tan et al., "Superhumanized Antibodies: Reduction of Immunogenic Potential by Complementarity-Determining Region Grafting with Human Germline Sequences: Application to Anti-CD28", <u>The Journal of Immunology</u> , 169:1119-1125 (2002)
		Tomlinson et al., "The Structural Repertoire of the Human Vk Domain", <u>EMBO J.</u> , 14(18):4628-4638 (1995)
		Tramontano et al., <u>J. Mol. Biol.</u> , 215:175-182 (1990)
		Wu et al., "An Analysis of the Sequences of the Variable Regions of Bence Jones Proteins and Myeloma Light Chains and Their Implications for Antibody Complementarity", <u>J. Exp. Med.</u> , 132:211-250 (1970)
✓		Wu et al., "Humanization of a Murine Monoclonal Antibody by Simultaneous Optimization of Framework and

EXAMINER	DATE CONSIDERED
<i>[Signature]</i>	4/19/06
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.	

<b>FORM 1449*</b> <b>INFORMATION DISCLOSURE STATEMENT</b>  <b>IN AN APPLICATION</b>  (Use several sheets if necessary)	<b>Docket Number:</b> 11669.120USU1	<b>Application Number:</b> 10/764,428
	<b>Applicant:</b> SIMMONS	
	<b>Filing Date:</b> 01/23/04	<b>Group Art Unit:</b> 1651 1649

		CDR Residues", <u>J. Mol. Biol.</u> , 294:151-162 (1999)
PWK		Ye et al., "Gene Synthesis and Expression in <i>E. Coli</i> for PUMP, a Human Matrix Metalloproteinase", <u>Biochem. Biophys. Res. Comm.</u> , 186(1):143-149 (1992)



<b>EXAMINER</b> 	<b>DATE CONSIDERED</b> 4/19/06
<b>EXAMINER:</b> Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.	

Date Mailed: July 11, 2005

Sheet 1 of 1

<b>FORM 1449*</b> <b>INFORMATION DISCLOSURE STATEMENT</b>  <b>IN AN APPLICATION</b> (Use several sheets if necessary)	Docket Number: 11669.120USU1	Application Number: 10764,428
	Applicant: SIMMONS	
	Filing Date: 01/23/04	Group Art Unit: 1661 1644

U.S. PATENT DOCUMENTS						
EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
PNK	6,331,415 B1	12/18/2001	CABILLY ET AL.			

FOREIGN PATENT DOCUMENTS							
	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		

**23552**  
PATENT TRADEMARK OFFICE

EXAMINER <i>[Signature]</i>	DATE CONSIDERED 4/19/06
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.	

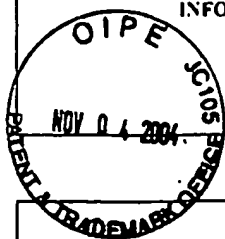
\*Substitute Disclosure Statement Form (PTO-1449)

Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

FORN 189  
DEC 06 2004  
PATENT & TRADEMARK OFFICE

<b>23552</b> PATENT TRADEMARK OFFICE	EXAMINER: <i>[Signature]</i>	DATE CONSIDERED: <i>4/19/02</i>
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.		

<b>FORM 1449*</b> <b>INFORMATION DISCLOSURE STATEMENT</b> <b>IN AN APPLICATION</b> (Use several sheets if necessary)	Docket Number: 11669.120USUI	Application Number: 10 764,428
	Applicant: SIMMONS	
	Filing Date: 01/23/04	Group Art Unit: UNKNOWN <i>164</i>



U.S. PATENT DOCUMENTS						
EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
<i>PSK</i>	3,645,090	02/29/1972	Mochizuki et al.			
	3,773,919	11/20/1973	Boswell et al.			
	RE 30,985	06/29/1982	Cartaya			
	3,940,475	02/24/1976	Gross			
	4,560,655	12/24/1985	Baker			
	4,657,866	04/14/1987	Kumar			
	4,737,456	04/12/1988	Weng et al.			
	4,767,704	08/30/1988	Cleveland et al.			
	4,927,762	05/22/1990	Darfler			
	4,943,529	07/24/1990	Van de Berg et al.			
	5,122,469	06/16/1992	Mather et al.			
	5,264,365	11/23/1993	Georgiou et al.			
	5,508,192	04/16/1996	Georgiou et al.			
	5,545,807	08/13/1996	Surani et al.			
	5,589,369	12/31/1996	Seidman et al.			
	5,591,669	01/07/1997	Krimpenfort et al.			
	5,639,635	06/17/1997	Joly et al.			
	5,648,237	07/15/1997	Carter			
	5,747,662	05/05/1998	Simmons et al.			
	6,075,181	06/13/2000	Kucherlapati et al.			
	6,172,213 B1	01/09/2001	Lowman et al.			
	2002/0032315	03/14/2002	Baca et al.			
	6,455,279 B1	09/24/2002	Ambrosius et al.			
	6,602,688 B1	08/05/2003	Opper et al.			
	6,632,926 B1	10/14/2003	Chen et al.			
<i>✓</i>	6,632,927 B2	10/14/2003	Adair et al.			

EXAMINER <i>[Signature]</i>	DATE CONSIDERED <i>4/19/06</i>
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.	

<b>FORM 1449*</b> <b>INFORMATION DISCLOSURE STATEMENT</b>  <b>IN AN APPLICATION</b> (Use several sheets if necessary)	Docket Number: 11669.120USU1	Application Number: 10:764,428
	Applicant: SIMMONS	
	Filing Date: 01/23/04	Group Art Unit: UNKNOWN 1664

	2004/0202662 A1	10/14/04	Adair et al.				
<b>FOREIGN PATENT DOCUMENTS</b>							
	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
	0 139 383 A1	05/02/1985	Europe				
	0 183 070 B1	10/09/1991	Europe				
	0 244 234 B2	11/07/2001	Europe				
	0 394 538 B1	10/16/1996	Europe				
	0 402 226 A1	12/12/1990	Europe				
	WO 87/00195	01/15/1987	PCT				
	WO 90/03430	04/05/1990	PCT				
	WO 91/00357	01/10/1991	PCT				
	WO 93/17715	09/16/1993	PCT				
	WO 98/45331	10/15/1998	PCT				
	WO 98/45332	10/15/1998	PCT				
	WO 99/64460	12/16/1999	PCT				
	WO 01/70984 A2	09/27/2001	PCT				
	WO 02/056910 A1	07/25/2002	PCT				
		WO 03/018771 A2	03/06/2003	PCT			
	WO 2003/018771 A3	03/06/2003	PCT				
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>							
		Anthony, "Metabolism in the methylotrophic yeasts", <i>The Biochemistry of Methylotrophs</i> , Chap. 10, pp. 269-292 (1982)					
		Bachmann, "Derivations and Genotypes of Some Mutant Derivatives of <i>Escherichia coli</i> K-12", <i>Escherichia Coli and Salmonella Typhimurium: Cellular and Molecular Biology</i> , American Society for Microbiology, 2:1190-1219 (ATCC Deposit No. 27,325) (1987)					
		Ballance et al., "Transformation of <i>Aspergillus Nidulans</i> by the Orotidine-5'-Phosphate Decarboxylase Gene of <i>Neurospora Crassa</i> ", <i>Biochem. Biophys. Res. Commun.</i> , 112(1):284-289 (1983)					
			Barnes et al., "Methods for Growth of Cultured Cells in Serum-Free Medium", <i>Anal. Biochem.</i> , 102:255-270 (1980)				

EXAMINER	DATE CONSIDERED 4/19/06
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.	

<b>FORM 1449*</b> <b>INFORMATION DISCLOSURE STATEMENT</b>  <b>IN AN APPLICATION</b>  (Use several sheets if necessary)	Docket Number: 11669.120USU1	Application Number: 10/764,428
	Applicant: SIMMONS	
	Filing Date: 01/23/04	Group Art Unit: UNKNOWN <i>1644</i>

<i>Pnt</i>	Bass et al., "Hormone Phage: An Enrichment Method for Variant Proteins with Altered Binding Properties", <i>Proteins</i> , 8:309-314 (1990)
	Beach et al., "High-frequency transformation of the fission yeast <i>Schizosaccharomyces pombe</i> ", <i>Nature</i> , 290:140-142 (1981)
	Case et al., "Efficient Transformation of <i>Neurospora crassa</i> by Utilizing Hybrid Plasmid DNA", <i>Proc. Natl. Acad. Sci. USA</i> , 76:5259-5263 (1979)
	Chen et al., "Selection and Analysis of an Optimized Anti-VEGF Antibody: Crystal Structure of an Affinity-matured Fab in Complex with Antigen", <i>J. Mol. Biol.</i> , 293:865-881 (1999)
	Co et al., "Humanized antibodies for therapy", <i>Nature</i> , 351:501-502 (1991)
	David et al., "Protein Iodination with Solid State Lactoperoxidase", <i>Biochemistry</i> , 13:1014-1021 (1974)
	Fleer et al., "Stable Multicopy Vectors for High-Level Secretion of Recombinant Human Serum Albumin by <i>Kluyveromyces</i> Yeasts", <i>Bio/Technology</i> , 9:968-975 (1991)
	Ham et al., "Media and Growth Requirements", <i>Meth. Enz.</i> , 58:44-93 (1979)
	Hara et al., "Overproduction of Penicillin-Binding Protein 7 Suppresses Thermosensitive Growth Defect at Low Osmolarity due to an <i>spr</i> Mutation of <i>Escherichia Coli</i> ", <i>Microbiol. Drug Resistance</i> , 2:63-72 (1996)
	Harris, "Therapeutic Monoclonals", <i>Biochem. Soc. Transactions</i> , 23:1035-1038 (1995)
	Hunter et al., "Preparation of Iodine-131 Labelled Human Growth Hormone of High Specific Activity", <i>Nature</i> , 194:495-496 (1962)
	Hurle et al., "Protein engineering techniques for antibody humanization", <i>Curr. Op. Biotech</i> , 5:428-433 (1994)
	Jäger et al., "Folding and Assembly of an Antibody Fv Fragment, a Heterodimer Stabilized by Antigen", <i>J. Mol. Biol.</i> , 285:2005-2019 (1999)
	Joly et al., "Overexpression of <i>Escherichia coli</i> oxidoreductases increases recombinant insulin-like growth factor-I accumulation", <i>Proc. Natl. Acad. Sci. USA</i> , 95:2773-2777 (1998)
	Kabat et al., "Sequence of Proteins of Immunological Interest", <i>National Institute of Health (4th Ed.)</i> pp. 41-42, 167-178 (1991)
	Kabat et al., "Sequence of Proteins of Immunological Interest", <i>National Institute of Health, Public Health Service (5th Ed.)</i> , pp. 647-669 (1991)
	Kelly et al., "Transformation of <i>Aspergillus niger</i> by the <i>amdS</i> gene of <i>Aspergillus nidulans</i> ", <i>EMBO J.</i> , 4:475-479 (1985)
	Kikuchi et al., "The nucleotide sequence of the promoter and the amino-terminal region of alkaline phosphatase structural gene ( <i>phoA</i> ) of <i>Escherichia coli</i> ", <i>Nucleic Acids Res.</i> , 9(21):5671-5678 (1981)
	Knappik et al., "Engineered turns of a recombinant antibody improve its <i>in vivo</i> folding", <i>Protein Engineering</i> , 8(1):81-89 (1995)
✓	Kostelny et al., "Formation of a Bispecific Antibody by the Use of Leucine Zippers", <i>J. Immunol.</i> , 148:1547-1553 (1992)

EXAMINER: <i>[Signature]</i>	DATE CONSIDERED: <i>11/19/06</i>
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.	



<b>FORM 1449*</b> <b>INFORMATION DISCLOSURE STATEMENT</b>  <b>IN AN APPLICATION</b> (Use several sheets if necessary)	Docket Number: 11669.120USU1	Application Number: 10/764,428
	Applicant: SIMMONS	
	Filing Date: 01/23/04	Group Art Unit: UNKNOWN <i>7/6/04</i>

<i>PK</i>		Li et al., "Influences of amino acid sequences in FRI region on binding activity of the scFv and Fab of an antibody to human gastric cancer cells", <i>Immunology Letters</i> , 71:157-165 (2000)
		Lindmark et al., "Binding of Immunoglobulins to Protein A and Immunoglobulin Levels in Mammalian Sera", <i>J. Immunol. Meth.</i> , 62:1-13 (1983)
		Louvencourt et al., "Transformation of <i>Kluyveromyces lactis</i> by Killer Plasmid DNA", <i>J. Bacteriol.</i> , 154(2):737-742 (1983)
		Mather, "Establishment and Characterization of Two Distinct Mouse Testicular Epithelial Cell Lines", <i>Biol. Reprod.</i> , 23:243-252 (1980)
		Milstein et al., "Hybrid hybridomas and their use in immunohistochemistry", <i>Nature</i> , 305:537-540 (1983)
		Muller et al., "VEGF and the Fab fragment of a humanized neutralizing antibody: crystal structure of the complex at 2.4 Å resolution and mutational analysis of the interface", <i>Structure</i> , 6:1153-1167 (1998)
		Nygren, "Conjugation of Horseradish Peroxidase to Fab Fragments with Different Homobifunctional and Heterobifunctional Cross-Linking Reagents", <i>Histochem. and Cytochem.</i> , 30:407-412 (1982)
		O'Sullivan et al., "Methods for the Preparation of Enzyme - Antibody Conjugates for Use in Enzyme Immunoassay", <i>Methods in Enzymology</i> , 73:147-166 (1981)
		Pain et al., "Preparation of Protein A-Peroxidase Monoconjugate Using a Heterobifunctional Reagent, and its Use in Enzyme Immunoassays", <i>J. Immunol. Methods</i> , 40:219-230 (1981)
		Picken et al., "Nucleotide Sequence of the Gene for Heat-Stable Enterotoxin II of <i>Escherichia coli</i> ", <i>Infect. Immun.</i> , 42(1):269-275 (1983)
		Roguska et al., "A comparison of two murine monoclonal antibodies humanized by CDR-grafting and variable domain resurfacing", <i>Protein Engineering</i> , 9(10):895-904 (1996)
		Scholtissek et al., "A cloning cartridge of $\lambda$ t <sub>0</sub> terminator", <i>Nucleic Acids Res.</i> , 15(7):3185 (1987)
		Simmons et al., "Expression of full-length immunoglobulins in <i>Escherichia coli</i> : rapid and efficient production of aglycosylated antibodies", <i>J. Immunol. Methods</i> , 263:133-147 (2002)
		Sreekrishna et al., "High level expression of heterologous proteins in methylotrophic yeast <i>Pichia pastoris</i> ", <i>J. Basic Microbiol.</i> , 28(4):265-278 (1988)
		Sutcliffe, "Complete Nucleotide Sequence of the <i>Escherichia coli</i> Plasmid pBR322", <i>DNA: Replication and Recombination, Cold Spring Harbor Symp. Quant. Biol.</i> , 43:77-90 (1979)
		Tilburn et al., "Transformation by integration in <i>Aspergillus nidulans</i> ", <i>Gene</i> , 26:205-221 (1983)
		Urlaub et al., "Isolation of Chinese Hamster Cell Mutants Deficient in Dihydrofolate Reductase Activity", <i>Proc. Natl. Acad. Sci. USA</i> , 77(7):4216-4220 (1980)
		Van den Berg et al., " <i>Kluyveromyces</i> as a Host for Heterologous Gene Expression: Expression and Secretion of Prochymosin", <i>Bio/Technology</i> , 8:135-139 (1990)
<i>✓</i>		Vaswani et al., "Humanized antibodies as potential therapeutic drugs", <i>Ann. Allergy, Asthma &amp; Immunol.</i> , 81:105-119 (1998)

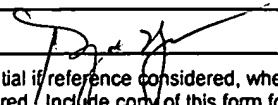
EXAMINER <i>TPJ</i>	DATE CONSIDERED <i>4/19/06</i>
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.	


<b>FORM 1449*</b> <b>INFORMATION DISCLOSURE STATEMENT</b>  <b>IN AN APPLICATION</b>  (Use several sheets if necessary)	Docket Number: 11669.120USU1	Application Number: 10/764,428
	Applicant: SIMMONS	
	Filing Date: 01/23/04	Group Art Unit: <del>UNKNOWN</del> 1604

Pat		Wöm et al., "Mutual Stabilization of V <sub>L</sub> and V <sub>H</sub> in Single-Chain Antibody Fragments, Investigated with Mutants Engineered for Stability", <i>Biochemistry</i> , 37:13120-13127 (1998)
↓		Yanofsky et al., "The complete nucleotide sequence of the tryptophan operon of <i>Escherichia coli</i> ", <i>Nucleic Acids Res.</i> , 9:6647-6668 (1981)
↓		Yelton et al., "Transformation of <i>Aspergillus nidulans</i> by using a <i>trpC</i> plasmid", <i>Proc. Natl. Acad. Sci. USA</i> , 81:1470-1474 (1984)

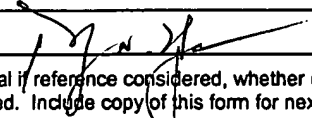
**23552**

PATENT TRADEMARK OFFICE

EXAMINER 	DATE CONSIDERED 4/19/02
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.	

	<b>INFORMATION DISCLOSURE STATEMENT</b>		Docket Number: 11669.120USU1	Application Number: 10/764,428
	<b>IN AN APPLICATION</b>		Applicant: SIMMONS	
	(Use several sheets if necessary)		Filing Date: 01/23/04	Group Art Unit: <del>1651</del> 1644

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
P.H. ↓	4,816,567	03/28/1989	Cabilly et al.				
	5,534,615	07/09/1996	Baker et al.				
	5,840,523	11/24/1998	Simmons et al.				
	6,027,888	02/22/2000	Georgiuo et al.				
	6,083,715	07/04/2000	Georgiuo et al.				
	6,172,213 B1	01/09/2001	Lowman et al.				
	2002/0032315 A1	03/14/2002	Baca et al.				
	6,602,688 B1	08/05/2003	Opper et al.				
FOREIGN PATENT DOCUMENTS							
	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
P.H. ↓	WO 02/061090	08/08/2002	PCT				
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
P.H. ↓		Arie et al., "Chaperone function of FkpA, a heat shock prolyl isomerase, in the periplasm of <i>Escherichia coli</i> ", <i>Molecular Microbiology</i> , 39(1):199-210 (2001)					
		Arndt et al., "Factors Influencing the Dimer to Monomer Transition of an Antibody Single-Chain Fv Fragment", <i>Biochemistry</i> , 37:12918-12926 (1998)					
		Barbas et al., "In vitro evolution of a neutralizing human antibody to human immunodeficiency virus type 1 to enhance affinity and broaden strain cross-reactivity", <i>Proc. Nat. Acad. Sci. USA</i> , 91:3809-3813 (1994)					
		Benhar et al., "Identification of Residues that Stabilize the Single-chain Fv of Monoclonal Antibodies B3", <i>The Journal of Biological Chemistry</i> , 270(40):23373-23380 (1995)					
		Bothmann et al., "The Periplasmic <i>Escherichia coli</i> Peptidylprolyl <i>cis,trans</i> -Isomerase FkpA, <i>Journal of Biological Chemistry</i> , 275(22):17100-17105 (2000)					
		Carter et al., "Humanization of an anti-p185 <sup>HER2</sup> antibody for human cancer therapy", <i>Proc. Natl. Acad. Sci. USA</i> , 89:4285-4289 (1992)					
		Chen et al., "Chaperone Activity of DsbC", <i>Journal of Biological Chemistry</i> , 274(28):19601-19605 (1999)					
		Chothia et al., "Domain Association in Immunoglobulin Molecules", <i>J. Mol. Biol.</i> , 186:651-663 (1985)					
		Chothia et al., "Canonical Structures for the Hypervariable Regions", <i>J. Mol. Biol.</i> , 196:901-917 (1987)					
↓		Dall'Acqua, W. et al., "Antibody Engineering", <i>Current Opinion in Structural Biology</i> , 8:443-450 (1998)					

EXAMINER 	DATE CONSIDERED 4/19/06
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.	

<b>FORM 1449*</b> <b>INFORMATION DISCLOSURE STATEMENT</b>  <b>IN AN APPLICATION</b>  (Use several sheets if necessary)	Docket Number: 11669.120USU1	Application Number: 10/764,428
	Applicant: SIMMONS	
	Filing Date: 01/23/04	Group Art Unit: 1651 <i>1644</i>

<i>Pat</i>		de Haard et al., "Absolute conservation of residue 6 of immunoglobulin heavy chain variable regions of class IIA is required for correct folding", <i>Prot. Eng.</i> , 11(12):1267-1276 (1998)
		Dumoulin, M. et al., "Single-domain antibody fragments with high conformational stability", <i>Nat. Struct. Biol.</i> , 11:500-515 (2002)
		Forsberg, G. et al., "Identification of Framework Residues in a Secreted Recombinant Antibody Fragment that Control Production Level and Localization in <i>Escherichia coli</i> ", <i>J. Biol. Chem.</i> , 272:12430-12436 (1997)
		Hawkins et al., "Selection of Phage Antibodies by Binding Affinity: Mimicking Affinity Maturation", <i>J. Mol. Biol.</i> , 226:889-896 (1992)
		Honneger et al., "The influence of the Buried Glutamine or Glutamate Residue in Position 6 on the Structure of Immunoglobulin Variable Domains", <i>J. Mol. Biol.</i> , 309:687-699 (2001)
		Jackson et al., "In Vitro Antibody Maturation: Improvement of a High Affinity, Neutralizing Antibody Against IL-1 $\beta$ ", <i>J. Immunol.</i> , 154(7):3310-3319 (1995)
		Jones et al., "Replacing the complementarity-determining regions in a human antibody with those from a mouse", <i>Nature</i> , 321:522-525 (1986)
		Jung, S. et al., "Selection for Improved Protein Stability by Phage Display", <i>J. Mol. Biol.</i> , 294:163-180 (1999)
		Jung et al., "The Importance of Framework Residues H6, H7 and H10 in Antibody Heavy Chains: Experimental Evidence for a New Structural Subclassification of Antibody V <sub>H</sub> Domains", <i>J. Mol. Biol.</i> , 309:701-716 (2001)
		Knappik, A. et al., "Fully Synthetic Human Combinatorial Antibody Libraries (HuCAL) Based on Modular Consensus Frameworks and CDRs Randomized with Trinucleotides", <i>J. Mol. Biol.</i> , 296:57-86 (2000)
		Ladner, R. et al., "Novel frameworks as a source of high-affinity ligands", <i>Curr. Opin. Biotechnol.</i> , 12:406-410 (2001)
		Langedijk et al., "The Nature of Antibody Heavy Chain Residue H6 Strongly Influences the Stability of a V <sub>H</sub> Domain Lacking the Disulfide Bridge", <i>J. Mol. Biol.</i> , 283:95-110 (1998)
		Marks et al., "By-Passing Immunization: Building High Affinity Human Antibodies by Chain Shuffling", <i>BioTechnology</i> , 10:779-783 (1992)
		Miller, "Protein-Protein Recognition and the Association of Immunoglobulin Constant Domains", <i>J. Mol. Biol.</i> , 216:965-973 (1990)
		Morrison et al., "Chimeric human antibody molecules: Mouse antigen-binding domains with human constant region dimmers", <i>Proc. Natl. Acad. Sci USA</i> , 81(21):6851-6855 (1984)
		Muller et al., "VEGF and the Fab fragment of a humanized neutralizing antibody: crystal structure of the complex at 2.4 Å resolution and mutational analysis of the interface", <i>Structure</i> , 6:1153-1167 (1998)
		Nieba et al., "Disrupting the hydrophobic patches at the antibody variable/constant domain interface: improved <i>in vivo</i> folding and physical characterization of an engineered scFv fragment", <i>Protein Engineering</i> , 10(4):435-444 (1997)
<i>✓</i>		Novotny et al., "Structural invariants of antigen binding: Comparison of immunoglobulin V <sub>L</sub> -V <sub>H</sub> and V <sub>L</sub> -V <sub>L</sub> domain dimmers", <i>Proc. Natl. Acad. Sci USA</i> , 82:4592-4596 (1985)

EXAMINER <i>[Signature]</i>	DATE CONSIDERED <i>4/19/06</i>
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.	

<b>FORM 1449*</b> <b>INFORMATION DISCLOSURE STATEMENT</b>  <b>IN AN APPLICATION</b>  (Use several sheets if necessary)	Docket Number: 11669.120USUI	Application Number: 10/764,428
	Applicant: SIMMONS	
	Filing Date: 01/23/04	Group Art Unit: <del>1651</del> 1664

	Padlan et al., "Antibody Fab Assembly: The Interface Residues Between CH1 and CL", <i>Mol. Immunol.</i> , 23(9): 951-960 (1986)
	Plückthun, A., "Antibodies from <i>Escherichia coli</i> ", <i>The Pharmacology of Monoclonal Antibodies</i> , Vol. 113, Rosenberg and Moore eds. Springer-Verlag, New York, pp. 269-315 (1994)
	Presta, "Antibody Engineering", <i>Curr. Op. Struct. Biol.</i> , 2:593-596 (1992)
	Presta et al., "Humanization of an Anti-Vascular Endothelial Growth Factor Monoclonal Antibody for the Therapy of Solid Tumors and Other Disorders", <i>Cancer Res.</i> , 57:4593-4599 (1997)
	Proba et al., "Functional antibody single-chain fragments from the cytoplasm of <i>Escherichia coli</i> : influence of thioredoxin reductase (TrxB)", <i>Gene</i> , 159:203-207 (1995)
	Ramm et al., "The Periplasmic <i>Escherichia coli</i> Peptidylprolyl <i>cis,trans</i> -Isomerase FkpA", <i>J. Mol. Biol.</i> , 275(22):17106-17113 (2000)
	Ramm et al., "Removal of the Conserved Disulfide Bridges from the scFv Fragment of an Antibody: Effects on Folding Kinetics and Aggregation", <i>J. Mol. Biol.</i> , 290:535-546 (1999)
	Riechmann et al., "Reshaping human antibodies for therapy", <i>Nature</i> , 332:323-327 (1988)
	Schier et al., "Identification of functional and structural amino-acid residues by parsimonious mutagenesis", <i>Gene</i> , 169:147-155 (1995)
	Shields et al., "Inhibition of Allergic Reactions with Antibodies to IgE", <i>Int. Arch. Allergy Immunol.</i> , 107:308-312 (1995)
	Simmons et al., "Translational level is a critical factor for the secretion of heterologous proteins in <i>Escherichia coli</i> ", <i>Nature Biotechnology</i> , 14:629-634 (1996)
	Sims et al., "A Humanized CD18 Antibody Can Block Function without Cell Destruction", <i>J. Immunol.</i> , 151:2296-2308 (1993)
	Verhoeyen et al., "Reshaping Human Antibodies: Grafting an Antilysozyme Activity", <i>Science</i> , 239:1534-1536 (1988)
	Wall et al., "The hierarchy of mutations influencing the folding of antibody domains in <i>Escherichia coli</i> ", <i>Protein Engineering</i> , 12(7):605-611 (1999)
	Worn et al., "Stability Engineering of Antibody Single-chain Fv Fragments", <i>J. Mol. Biol.</i> , 305:989-1010 (2001)
	Yelton et al., "Affinity Maturation of the BR96 Anti-Carcinoma Antibody by Codon-Based Mutagenesis", <i>J. Immunol.</i> , 155:1994-2004 (1995)
	Zapata, G. et al., "Engineering linear F(ab') <sub>2</sub> fragments for efficient production in <i>Escherichia coli</i> and enhanced antiproliferative activity", <i>Protein Eng.</i> , 8(10):1057-1062 (1995)
✓	Zhu et al., "Remodeling domain interfaces to enhance heterodimer formation", <i>Protein Science</i> , 6:781-788 (1997)

**23552**

PATENT TRADEMARK OFFICE

EXAMINER	DATE CONSIDERED 4/19/06
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.	